

REMARKS

Claims 1-12 are pending and under consideration. Claims 1, 5, 7, and 8 have been amended. Support for the amendment to claims 1, 5, 7, and 8 may be found in the claims as originally filed, in Fig. 3, and at page 12, lines 1-14 of the specification. This amendment is believed to place the application in condition for allowance, and entry therefore is respectfully requested. In the alternative, entry of this amendment is requested as placing the application in better condition for appeal by, at least, reducing the number of issues outstanding. Further reconsideration is requested based on the foregoing amendment and the following remarks.

Response to Arguments:

The Applicants appreciate the consideration given to their arguments. The Applicants, however, are disappointed that their arguments were not found to be persuasive. The final Office Action, furthermore, maintains the rejections in the Office Action mailed July 27, 2005 at page 2, section 4, but asserts that the arguments concerning them have been rendered moot by new grounds of rejection at page 5, section 7. It is not clear to the Applicants why the new grounds of rejection were needed, if the original grounds were being maintained.

The final Office Action asserts in section 10, at page 6 that the argument that Bouke neither teaches, discloses, nor suggests "a data destination switching portion for transferring packet data received for the terminal to the communication line, after the switching," as recited in claim 1, contradicts the argument that Bouke shows a communication line being switched to a different *destination*. To the contrary, the Office Action mailed July 27, 2005 acknowledged at page 7 that Bouke shows no "data destination switching portion for transferring packet data received for the terminal to the communication line, after the switching." Furthermore, there is no indication that the "special requirements of the requested data element through selection of the second address," to which Bouke refers have anything at all to do with "a data destination switching portion for transferring packet data received for the terminal to the communication line, after the switching," as recited in claim 1.

The "special requirements" to which Bouke refers, rather, are described in paragraph [0011] as being met by providing a telephone connection as one leg of a data connection that connects to two different data processing installations. Thus the statement that Bouke shows no "data destination switching portion for transferring packet data received for the terminal to the communication line, after the switching," is substantially consistent with the argument that Bouke shows a communication line being switched to a different destination.

Finally, even if the above-mentioned passage of Bouke meant that “the connection is switched to transfer the data on a communication line that satisfies special requirements of the requested data element,” as asserted in the final Office Action at page 7, there is still no disclosure in Bouke of “a data destination switching portion for transferring packet data received for the terminal to the communication line, after the switching,” as recited in claim 1.

Still in the interest of compact prosecution only, and not for any reason of patentability, the claims have been amended further to define the invention more clearly. Further reconsideration is thus requested.

Claim Rejections - 35 U.S.C. § 112:

Claim 5 was rejected under 35 U.S.C. § 112, second paragraph, as indefinite. Claim 5 was amended to make it more definite. Withdrawal of the rejection is earnestly solicited.

Claim Rejections - 35 U.S.C. § 103:

Claims 1-11 were rejected under 35 U.S.C. § 103(a) as being unpatentable over EP 0 987 866 to Stoffelsma (a.k.a. “Bouke”) in view of obviousness in the Office Action mailed July 27, 2005. The rejection is traversed to the extent it might apply to the claims as amended. Reconsideration is earnestly solicited.

The seventh clause of claim 1 recites:

A data destination switching portion for transferring packet data received for the terminal to the communication line, after the switching.

Bouke neither teaches, discloses, nor suggests “a data destination switching portion for transferring packet data received for the terminal to the communication line, after the switching,” as recited in claim 1. The final Office Action acknowledges graciously the fact that Bouke shows no “data destination switching portion for transferring packet data received for the terminal to the communication line, after the switching,” as recited in claim 1, and attempts to ameliorate this deficiency of Bouke by asserting at pages 7 and 8 of the Office Action mailed July 27, 2005 that:

However, it would have been obvious for one in the ordinary skill in the art to switch communication lines to transmit data in the teachings of Bouke because Bouke has the capability to create new data connections between client and server for transmitting data elements that have special requirements, and also because Bouke teaches different forms of communication working alongside each other (Bouke, pg 6, paragraph 10). Therefore it would have been obvious to switch communication lines in Bouke in order to handle client requests for data elements having special requirements for transmission.

Claim 1, however, recites “data destination switching portion for transferring packet data received for the terminal to the communication line, after the switching,” not simply switching communication lines, or transmitting data elements that have special requirements, as described in the Office Action. Thus, even if Bouke were modified as proposed in the Office Action, the claimed invention would not result.

Furthermore, in Bouke, a communication line is switched to a different *destination*. In particular, as described in the Abstract,

The connection unit (3) sets up a data connection between a first data processing system e.g. PC (2) and a second data processing system e.g. web server, depending on a request from the first system to transfer a data element present in the second system. The second system and data element are indicated using an address. An address generator generates a second address depending on the request address and initiates setting up the connection to the data processing system and data element indicated by the second address.

Since Bouke switches a communication line to a different destination, Bouke will have no interest in, and consequently no disclosure of, “data destination switching portion for transferring packet data received for the terminal to the communication line, after the switching,” as recited in claim 1.

The seventh clause of claim 1 recites further:

Rewriting a MAC address of packet data received and stored before the switching and a MAC address of packet data to be received after the switching.

Bouke neither teaches, discloses, nor suggests “rewriting a MAC address of packet data received and stored before the switching and a MAC address of packet data to be received after the switching, and by copying both the packet data to a buffer area of a MAC address corresponding to the communication line after the switching,” as recited in claim 1.

Finally, the seventh clause of claim 1 recites:

Copying both the packet data to a buffer area of a MAC address corresponding to the communication line after the switching.

Bouke neither teaches, discloses, nor suggests “copying both the packet data to a buffer area of a MAC address corresponding to the communication line after the switching,” as recited in claim 1. Claim 1 is submitted to be allowable. Withdrawal of the rejection of claim 1 is earnestly solicited.

Claims 2-6 depend from claim 1 and add additional distinguishing elements. Claims 2-6 are thus also submitted to be allowable. Withdrawal of the rejection of claims 2-6 is earnestly solicited.

Claim 7:

The seventh clause of claim 7 recites:

A switch executing portion for executing the switching to the communication line designated by the switch instruction and for synchronizing the contents of the buffer of the terminal with that of the server in accordance with the address in the buffer received from the server.

Bouke neither teaches, discloses, nor suggests "a switch executing portion for executing the switching to the communication line designated by the switch instruction and for synchronizing the contents of the buffer of the terminal with that of the server in accordance with the address in the buffer received from the server," as recited in claim 7. Furthermore, the destination side of the terminal of Bouke, i.e. ISP1 or ISP2, has none of the structure of the claimed invention, in which the destination side can transfer an address in the buffer. Thus, in Bouke, if the user switches the communication line while using a service, the service is disconnected. The user must needs access the web site again to restart the service. In any case, even if the user restarts the service, the data transmitted while the communication line was disconnected will be lost.

In the claimed invention, in contrast, the user can restart the service without losing data transmitted during the period in which the communication line was disconnected, since it is stored in a buffer. Claim 7 is thus submitted to be allowable for at least those reasons discussed above with respect to claim 1. Withdrawal of the rejection of claim 7 is earnestly solicited.

Claim 8:

The seventh clause of claim 8 recites:

A data destination switching portion for transferring packet data received from the terminal to the communication line after the switching.

Bouke neither teaches, discloses, nor suggests "a data destination switching portion for transferring packet data received from the terminal to the communication line after the switching," as discussed above with respect to claim 1.

The seventh clause of claim 8 recites further:

Rewriting a MAC address of packet data received and stored before the switching

and a MAC address of packet data to be received after the switching.

Bouke neither teaches, discloses, nor suggests “rewriting a MAC address of packet data received and stored before the switching and a MAC address of packet data to be received after the switching,” as discussed above with respect to claim 1.

Finally, the seventh clause of claim 8 recites:

Copying both the packet data to a buffer area of a MAC address corresponding to the communication line after the switching.

Bouke neither teaches, discloses, nor suggests “copying both the packet data to a buffer area of a MAC address corresponding to the communication line after the switching,” as discussed above with respect to claim 1.

The thirteenth clause of claim 8 recites:

A switch executing portion for executing the instruction to switch to the communication line designated by the switch instruction and for synchronizing contents of the buffer of the terminal with that of the server in accordance with the address in the buffer received from the server.

Bouke neither teaches, discloses, nor suggests “a switch executing portion for executing the instruction to switch to the communication line designated by the switch instruction and for synchronizing contents of the buffer of the terminal with that of the server in accordance with the address in the buffer received from the server,” as discussed above with respect to claim 7. Claim 8 is thus submitted to be allowable for at least those reasons discussed above with respect to claims 1 and 7. Withdrawal of the rejection of claim 8 is earnestly solicited.

Claims 9, 10, and 11 depend from claim 8 and add additional distinguishing elements. Claims 9, 10, and 11 are thus also submitted to be allowable. Withdrawal of the rejection of claims 9, 10, and 11 is earnestly solicited.

Claim 4:

Claim 4 was rejected under 35 U.S.C. § 103(a) as being unpatentable over Bouke in view of U.S. Patent No. 6,275,497 to Varma et al. (hereinafter “Varma”) in the Office Action mailed July 27, 2005. The rejection is traversed to the extent it might apply to the claims as amended. Reconsideration is earnestly solicited.

Claim 4 depends from claim 1 and adds additional distinguishing elements. Bouke neither teaches, discloses, nor suggests “a data destination switching portion for transferring packet data received from the terminal to the communication line after the switching,” “rewriting a

MAC address of packet data received and stored before the switching and a MAC address of packet data to be received after the switching, and by copying both the packet data to a buffer area of a MAC address corresponding to the communication line after the switching,” or “copying both the packet data to a buffer area of a MAC address corresponding to the communication line after the switching,” as discussed above with respect to claim 1. Varma does not either, and thus cannot make up for the deficiencies of Bouke with respect to claim 4. Claim 4 is thus also submitted to be allowable. Withdrawal of the rejection of claim 4 is earnestly solicited.

Japanese Publication No. 09-305508 to Ueda:

Claims 1, 7, 8, and 12 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Japanese Publication No. 09-305508 to Ueda (hereinafter “Ueda”). The rejection is traversed to the extent it might apply to the claims as amended. Reconsideration is earnestly solicited.

The second clause of claim 1 recites:

A buffer for cumulating a predetermined quantity of latest transmission or reception data in each communication line for each MAC address that is unique to the communication line.

Ueda neither teaches, discloses, nor suggests “a buffer for cumulating a predetermined quantity of latest transmission or reception data in each communication line,” as acknowledged graciously in the final Office Action. The final Office Action seeks to compensate for this deficiency of Ueda by saying at page 4, lines 1-4:

However, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the RAM32 as disclosed in Ueda, to be used as a buffer of a predetermined size since the RAM32 is used for holding data that is ready for transmission as disclosed.

RAM32 of Ueda, however, already has a function: holding the data that distributor 60 is distributing according to the ratio of the transmission speed described by the connection I/F parameter table 34 to usable I/F including cable I/F#116 while using the transmit data temporarily accumulated in RAM32, as described at paragraph [0056]:

And it detects [the communication terminal of the communication link place which is performing the present communication link through wireless I/F18 or cable I/F#217 during the communication link which used cable I/F#116, and] whether it is accessible, and a distributor 60 is distributed according to the ratio of the transmission speed described by the connection I/F parameter table 34 to usable I/F including cable I/F#116 while using the transmit data temporarily accumulated in RAM32. these transmit data -- a switcher 30 -- minding -- usable every -- it is at once from I/F -- it is -- sequential transmission is carried out. About

received data, it receives through single I/F.

Since RAM32 is already busy holding the data that distributor 60 is distributing according to the ratio of the transmission speed described by the connection I/F parameter table 34 to usable I/F including cable I/F#116, it would not be *available* for use as “a buffer for cumulating a predetermined quantity of latest transmission or reception data in each communication line for each MAC address that is unique to the communication line,” as recited in claim 1.

Furthermore, as provided by M.P.E.P. § 2143.01, if a proposed modification would render the prior art invention being modified unsatisfactory for its intended purpose, then there is no suggestion or motivation to make the proposed modification. Here, modifying Ueda as proposed by the final Office Action would render RAM32 of Ueda, and consequently Ueda itself, unsatisfactory for its intended purpose of holding the data that distributor 60 is distributing according to the ratio of the transmission speed described by the connection I/F parameter table 34 to usable I/F including cable I/F#116. There is consequently no suggestion or motivation to make the proposed modification.

Ueda, rather, operates by leaving the original communication line running while searching for another communication line to replace it. In particular, as Ueda describes in paragraph [0008]:

The technical-problem solution means by this invention is equipped with the interface for wire communications, and the interface for radio, a detection means detect an usable interface to the communication link with a communication link place out of said interface, and the change means changed in an interface while continuing the communication link with said communication link place between said usable interfaces are established, and an interface can change smoothly according to various conditions, without making the present communication link stop.

Since Ueda leaves the original communication line running while searching for another communication line to replace it, Ueda has no use for, and consequently no disclosure of “a buffer for cumulating a predetermined quantity of latest transmission or reception data in each communication line for each MAC address that is unique to the communication line,” as recited in claim 1.

The final Office Action goes on to say at page 4, lines 4-8 that:

Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the functionality of the RAM 32 to be equivalent to a buffer in order for transmission of data to functionally operate, since a memory area must be provided to store data temporarily while it is waiting to be used/formatted for transmission, i.e. packets, frames.

RAM32, however, is already storing data temporarily while it is waiting to be used/formatted for transmission. The transmit data in Ueda is temporarily accumulated in RAM32 until distributor 60 distributes it according to the ratio of the transmission speeds of the available I/Fs, as described in paragraph [0056]. Modifying Ueda as proposed by the final Office Action would thus not achieve "a buffer for cumulating a predetermined quantity of latest transmission or reception data in each communication line for each MAC address that is unique to the communication line," as recited in claim 1.

Finally, the final Office Action says at page 4, lines 8-13 that:

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate a buffer of a predetermined size into Ueda in order for the system of Ueda to be able to switch communication lines, from wired to wireless, without interrupting communication, while continuing the current communication.

Ueda, however, is already able to switch communication lines, from wired to wireless, without interrupting communication, while continuing the current communication. Ueda switches communication lines without interrupting communication by leaving the original communication line running while searching for another communication line to replace it, as discussed above. Ueda is complete in itself. There is no reason to believe, based on the disclosure of Ueda, that persons of ordinary skill in the art at the time the invention was made would have been motivated to modify Ueda, as proposed in the final Office Action, since Ueda is already able to switch communication lines, from wired to wireless, without interrupting communication, while continuing the current communication.

Finally, Ueda looked right at the problem of the transmission deficit that will arise if a network cable is removed from cable I/F#116 in order to move a communication terminal during the communication link which used cable I/F#116, and offered the solution of resending the missed data. In particular, as described in Ueda at paragraph [0026]:

Here, since a deficit will arise in the transmitting packet in the former when the packet is transmitted through I/F for wire communications if a network cable is removed from cable I/F#116 in order to move a communication terminal during the communication link which used cable I/F#116, a resending demand comes on the contrary from the communication terminal of a communication link place. Moreover, since a deficit arises in the receive packet when the packet is received through I/F for wire communications, after changing to another usable I/F, a resending demand will be sent to the communication terminal of a communication link place.

Since Ueda himself looked at the problem of the transmission deficit that will arise if a network cable is removed from cable I/F#116 in order to move a communication terminal during the communication link which used cable I/F#116, and decided to demand that the data be resent, rather than providing "a buffer for cumulating a predetermined quantity of latest transmission or reception data in each communication line for each MAC address that is unique to the communication line," as recited in claim 1, the modification proposed by the final Office Action was not, apparently, very obvious to Ueda. Claim 1 is submitted to be allowable. Withdrawal of the rejection of claim 1 is earnestly solicited.

Claim 7:

The second clause of claim 7 recites:

A buffer for cumulating a predetermined quantity of latest transmission or reception data in each communication line for each MAC address that is unique to the communication line.

Ueda neither teaches, discloses, nor suggests "a buffer for cumulating a predetermined quantity of latest transmission or reception data in each communication line," as acknowledged graciously in the final Office Action. There is no reason to believe, based on the disclosure of Ueda, that persons of ordinary skill in the art at the time the invention was made would have been motivated to modify Ueda, as proposed in the final Office Action, as discussed above with respect to the rejection of claim 1. Claim 7 is thus submitted to be allowable, for at least those reasons discussed above with respect to the rejection of claim 1. Withdrawal of the rejection of claim 7 is earnestly solicited.

Claim 8:

The second clause of claim 8 recites:

A buffer for cumulating transmission or reception data for the latest predetermined quantity in each communication line for each MAC address that is unique to the communication line.

Ueda neither teaches, discloses, nor suggests "a buffer for cumulating transmission or reception data for the latest predetermined quantity in each communication line," as acknowledged graciously in the final Office Action. There is no reason to believe, based on the disclosure of Ueda, that persons of ordinary skill in the art at the time the invention was made would have been motivated to modify Ueda, as proposed in the final Office Action, as discussed above with respect to the rejection of claim 1. Claim 8 is thus submitted to be allowable, for at least those

reasons discussed above with respect to the rejection of claim 1. Withdrawal of the rejection of claim 8 is earnestly solicited.

Claim 12:

The second clause of claim 12 recites:

Accumulating data in a buffer having an address for an active communication line.

Ueda neither teaches, discloses, nor suggests "accumulating data in a buffer having an address for an active communication line," as acknowledged graciously in the final Office Action. There is no reason to believe, based on the disclosure of Ueda, that persons of ordinary skill in the art at the time the invention was made would have been motivated to modify Ueda, as proposed in the final Office Action, as discussed above with respect to the rejection of claim 1. Claim 12 is thus submitted to be allowable, for at least those reasons discussed above with respect to the rejection of claim 1. Withdrawal of the rejection of claim 12 is earnestly solicited.

Conclusion:

Accordingly, in view of the reasons given above, it is submitted that all of claims 1-12 are allowable over the cited references. Allowance of all claims 1-12 and of this entire application is therefore respectfully requested.

If there are any formal matters remaining after this response, the Examiner is requested to telephone the undersigned to attend to these matters.

If there are any additional fees associated with filing of this Amendment, please charge the same to our Deposit Account No. 19-3935.

Respectfully submitted,

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